USB *Smart* Power Sensor PWR-6G

50Ω -30 dBm to +20 dBm, 1MHz to 6000 MHz

The Big Deal

- Low cost
- USB HID device compatible with 32 Bit operating system
- Includes “Measurement Application” GUI (Graphical User Interface) software with an API-DLL com object

Installation CD

CASE STYLE: JL1504

30 day MONEY-BACK GUARANTEE! Click Here For More Details

Product Overview

The Mini-Circuits PWR-6G Smart Power Sensor is a pocket-sized, 4.89” x 1.74” x 0.95”, precision test USB HID device (no driver installation required) that turns a Windows® PC into a power meter. All specifications provided in the data sheet apply to continuous wave (CW) signals. Each unit is shipped with our N-to-SMA adapter and a quick-locking USB cable for reliable connectivity. Native software and detailed user guides are provided on the included CD, or can be downloaded from minicircuits.com anywhere an internet connection is available, providing a full range of data analysis options.

Key Features

Feature	Advantages
USB HID (Human Interface Device)	Plug-and-Play (no need to install driver for the device).
GUI Measurement Application Software built-in	Enables the user to perform measurements on RF components such as Couplers, Filters, Amplifiers etc. and displays numerical data and graphs .
32 Bit operating system	Compatible with Windows® operating system.
No calibration required before taking measurement	The PWR-6G does not require any reference signal for calibration.

Wide Dynamic Range

USB *Smart* Power Sensor

PWR-6G

50Ω 1 MHz to 6000 MHz

Product Features

- Wide bandwidth, 1 to 6000 MHz
- 50 dB Dynamic Range, -30 to +20 dBm
- Good VSWR, 1.1:1 typ.
- Automatic frequency calibration & temperature compensation
- Multi-sensor capability (up to 24)
- Built in Application Measurement Software
- Remote operation via internet
- Effective, easy-to-use Windows® GUI
- ActiveX com object and .Net class library for use with other software: C++, C#, CVI®, Delphi®, LabVIEW® 8 or newer, MATLAB® 7 or newer, Python, Agilent VEE®, Visual Basic®, Visual Studio® 6 or newer, and more[1]

Case Style: JL1504

Installation CD

Model No.	Description	Price	Qty.
PWR-6G	**USB *smart* Power Sensor**	$695.00 ea.	(1-4)
Included Accessories			
PWR-SEN-6G	Power Sensor Head		
USB-CBL+	6 ft data cable (USB TYpe-A Plug)		1
NF-SM50+	N-Type (F) to SMA(M) Adapter		1
PWR-SEN-CD	Installation CD		1

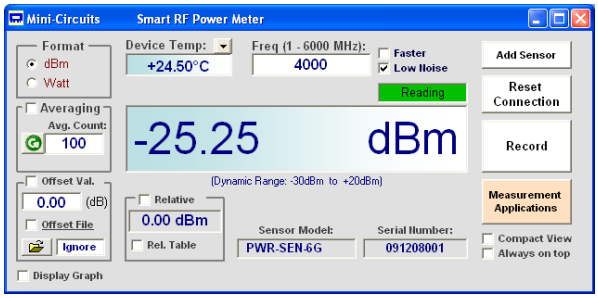
Typical Applications

- Turn almost any Windows PC into a Power Meter
- Pocket-sized portability for benchtop testing anywhere
- Remote location monitoring
- Automatic, scheduled data collection
- Evaluate high-power, multi-port devices with built-in virtual couplers/attenuators & other software tools

RoHS Compliant

See our web site for RoHS Compliance methodologies and qualifications

Mini-Circuits Power Meter Program for *Smart* USB Power Sensor



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Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. **2.** Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. **3.** The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

Electrical Specifications (CW) [2], -30 dBm to +20 dBm, 1 to 6000 MHz

Parameter		Freq. Range (MHz)	Min.	Typ.	Max.	Units
Dynamic Range		1 - 6000	-30	-	+20	dBm
VSWR		1 - 6000	-	1.1	1.3	:1
Uncertainty of Power Measurement @ 25ºC	@ -30 to +5 dBm	1 - 3000	-	± 0.10	± 0.30	dB
		3000 - 6000	-	± 0.15	± 0.30	dB
	@ +5 to +12 dBm	1 - 3000	-	± 0.15	± 0.30	dB
		3000 - 6000	-	± 0.15	± 0.30	dB
	@ +12 to +20 dBm	1 - 3000	-	± 0.20	± 0.40	dB
		3000 - 6000	-	± 0.20	± 0.40	dB
Uncertainty of Power Measurement @ 0ºC to 50ºC	@ -30 to +5 dBm	1 - 3000	-	± 0.25	-	dB
		3000 - 6000	-	± 0.25	-	dB
	@ +5 to +12 dBm	1 - 3000	-	± 0.20	-	dB
		3000 - 6000	-	± 0.20	-	dB
	@ +12 to +20 dBm	1 - 3000	-	± 0.35	-	dB
		3000 - 6000	-	± 0.30	-	dB
Linearity @ 25ºC		1 - 6000	-	±3.0	-	%
Measurement Resolution		1 - 6000	0.01	-	-	dB
Averaging Range		1 - 6000	1	-	999	-
Measurement Speed [3]		1 - 6000	-	150	-	mSec
Current (via host USB)		1 - 6000	-	40	70	mA

System Requirements

Parameter	Requirements
Interface	USB HID [3]
Host operating system	32 Bit operating system: Windows 98®, Windows XP®, Windows Vista®, Windows 7®
Hardware	Pentium® II or higher, USB port, RAM 256 Mb
USB cable (supplied)	Power sensor to be used with the supplied USB cable only

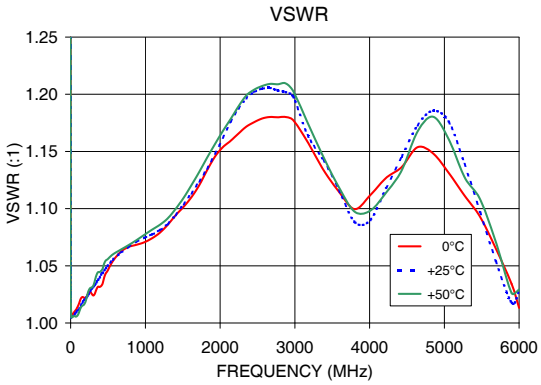
Note 2: All specifications apply to continuous wave (CW) signals.
Note 3: Up to S/N 11010XXXXXX, Measurement Speed is 300 mSec typ. and interface is USB 1.1/USB 2.0 (not USB HID).

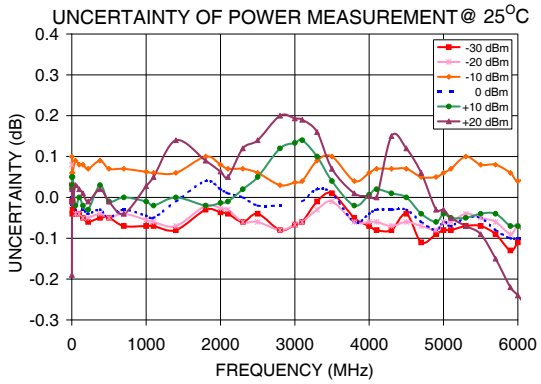
Absolute Maximum Ratings

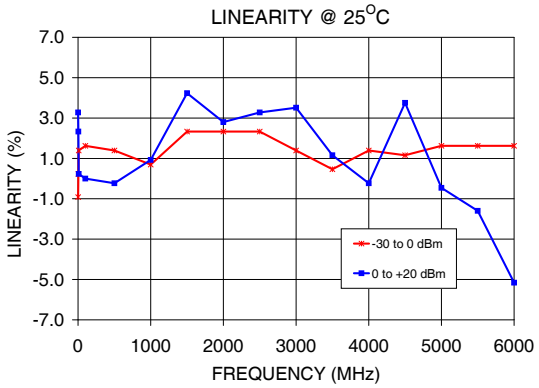
Parameter	Ratings
Operating Temperature	0°C to 50°C
Storage Temperature	-30°C to 70°C
DC Voltage at RF port	15V
CW Power	+27 dBm

Permanent damage may occur if any of these limits are exceeded.

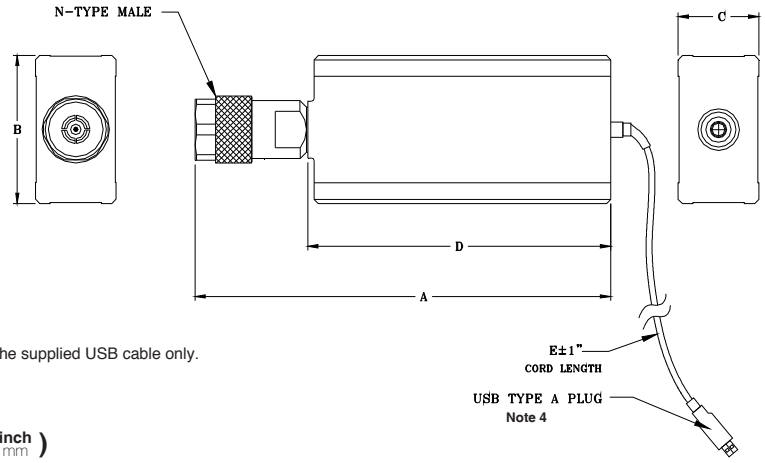
Typical Performance Curves







Outline Drawing (JL1504)



Note 4: Power sensor to be used with the supplied USB cable only.

Outline Dimensions (inch / mm)

A	B	C	D	E	WT. GRAMS
4.89 124.2	**1.74** 44.2	**.95** 24.1	**3.50** 88.9	**72.0** 1829	250

Warranty

For a full statement of the limited warranty offered by Mini-Circuits for the PWR-6G and the non-exclusive license for the software provided with the PWR-6G and the exclusive rights and remedies thereunder, together with Mini-Circuit's limitations of warranties and limitation of liability, please refer to Mini-Circuits User Guide for the PWR-6G and Mini-Circuits standard terms of sale found on its standard purchase order acknowledgment form, which are incorporated herein by reference. If you do not have these documents, please contact a Mini-Circuits representative and these documents will be provided promptly. Alternatively, for a copy of Mini-Circuits' standard terms of sale, visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

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Ordering, Pricing & Availability Information see our web site

Model	Description
PWR-6G	USB *Smart* Power Sensor

Included Accessories	Description
PWR-SEN-6G	Power Sensor Head
USB-CBL+[5]	6 ft data cable with USB Type-A plug connector
NF-SM50+	N-Type Female to SMA Male Adapter.
PWR-SEN-CD	Installation CD

Note 5: Power sensor to be used with the supplied USB cable only.

Calibration

Model	Description	
CALSEN-6G	Calibration Service	Click Here